

15th Aerospace Testing Seminar
October 11-13, 1994

Call for Papers Response

"The following paper abstract is submitted for the above seminar:

"Controlling Conservatism in Transient Vibration Tests"

by M. J. Hine

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Transient vibration tests were performed on a typical aerospace flight component to demonstrate that a specific test conservatism could be obtained by simple tailoring of the transient test waveform amplitude. The absolute conservatism between a typical launch transient and the test environment responses was measured using alternative characterizations previously used in shock testing. The characterizations include shock intensity, shock response spectrum, acceleration root mean square in both frequency and time domains, Fourier magnitude spectrum and ranked peaks.